

In the *Octodontidæ* the skull is rather short, the inter-orbital space is broad; the ant-orbital passage is large; the zygomatic arch is thrown out horizontally from the plane of the palate; the malar bone is broad and somewhat compressed, and throws up a small post-orbital process; the glenoid cavity of the temporal bone is narrow; the palate is contracted, and deeply notched posteriorly, the portion which lies between the molar teeth descends below the level of the anterior portion; the incisive foramina are wide: the body of the anterior and posterior sphenoids is very narrow, and the foramina on either side of them are large: the occipital condyles are very narrow, widely separated, and the articular surface is nearly vertical.* The descending *ramus* of the lower jaw springs from the outer side of the alveolar portion, and terminates in a point, more or less acute.

The incisors of the upper and lower jaws are of the same width: the molars are $\frac{4}{1}-\frac{4}{4}$, rootless.

In external characters the species of the present group vary considerably. The toes are 5|5 or 4|5. The claws of the hind feet are covered by strong, curved bristly hairs.

The principal points of distinction in the external characters of the four genera under consideration, may be thus expressed.

† TOES 5|5.

A. Fore feet formed for burrowing—strong and armed with large claws; tail short.

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| a. Ears minute, incisors very broad | <i>Ctenomys</i> . |
| b. Ears small, incisors broad | <i>Poepthagomys</i> . |

B. Fore feet weak; claws small; incisors narrow; ears large.

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| a. Tail with the apical portion furnished with long hair | <i>Octodon</i> . |
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†† TOES 4|5.

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| b. Tail furnished throughout with short adpressed hairs | <i>Abrocoma</i> . |
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It is not only in the comparatively small size and weakness of the fore feet that *Abrocoma* approaches more nearly to *Octodon*; but it agrees in having the soles, both of the fore and hind feet (which are devoid of hair), covered with minute round fleshy tubercles (see the under side of the tarsus figured in Plate 28.)

In *Octodon*, however, the toes have on their under side transverse incisions, as the *Muridæ*, and many other Rodents; a character not found in *Abrocoma*.

* There is a wide difference between the present animals and the *Arvicolidæ* in the form of the occipital condyles: the same difference is also observable between *Echimy*s and *Mus*. The *Octodontidæ* in fact have the same form of condyles as the Chinchillas and Cavies. In this and many other characters the last mentioned animals evince an affinity to the *Leporida*.

Here the under-side of the toes, like the sole of the foot, is covered with minute tubercles.

Though in the form of the skull *Abrocoma Cuvieri** agrees most nearly with that of *Octodon*; it differs in having the anterior portion narrower and rather larger, compared to the part devoted to the protection of the brain; the zygomatic arch is shorter, the incisive foramina are longer, the body of the anterior sphenoid is narrower, and the auditory bullæ are larger. The principal differences observable in the form of the lower jaw of *Abrocoma*, when compared with that of *Octodon*, consists in the coronoid process being smaller, the condyloid narrower from front to back; the descending *ramus* more deeply emarginated posteriorly, and the angle longer and more attenuated.

In those characters in which the skull of *Abrocoma* departs from that of *Octodon*, it approaches nearer to *Chinchilla*. In the peculiar form and large size of the ears, in the extreme softness of the fur, in the greater development of the pads on the under side of the toes, and in the possession of only four toes to the fore feet, there are other points of resemblance between *Abrocoma* and *Chinchilla*. In the Chinchilla as well as in *Octodon* and *Abrocoma*, we find the toe corresponding to the second (counting from the inner side) furnished with a broad hollow nail;† there are also stiff bristly hairs covering this nail as in the *Octodontidæ*.

The extreme softness of the fur of the animals about to be described, suggested for them the generic name of *Abrocoma*. The fur consists of hairs of two lengths, and the longer hairs are so extremely slender that they might almost be compared to the web of the spider. The specific names applied are those of the distinguished naturalists who first made us acquainted with the two genera, *Octodon* and *Poepthagomys*.

1. ABROCOMA BENNETTII.

PLATE XVIII.

Abrocoma Bennettii, *Waterh.*, Proceedings of the Zoological Society of London, for February 1837, p. 31.

A. corpore supra griseo, ad latera pallidiore et pallidè cervino lavato, subtùs albescenti-cervino; gula albescenti-grisea; pedibus sordidè albis: auribus amplis, ad marginem posticum rectis, extùs ad bases vellere, sicut in corpore, obsitis: caudà corpore breviorè, ad basin crassiusculà, pilis brevibus incumbentibus vestitâ.

DESCRIPTION.—Form stout; ears large, with the posterior margin straight; fore

* I have not had an opportunity of examining the skull of *Abrocoma Bennettii*.

† This nail no doubt is used to cleanse the fur, and the bristly hairs may also assist in the operation; the two small toes of the Kangaroo's hind foot are used for the same purpose.